

7/8/04

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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

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NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 May 12 EXTEND option available in structure searching  
NEWS 4 May 12 Polymer links for the POLYLINK command completed in REGISTRY  
NEWS 5 May 27 New UPM (Update Code Maximum) field for more efficient patent SDIs in Caplus  
NEWS 6 May 27 Caplus super roles and document types searchable in REGISTRY  
NEWS 7 Jun 22 STN Patent Forums to be held July 19-22, 2004  
NEWS 8 Jun 28 Additional enzyme-catalyzed reactions added to CASREACT  
NEWS 9 Jun 28 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG, and WATER from CSA now available on STN(R)

NEWS EXPRESS MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004

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NEWS INTER General Internet Information  
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NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
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FILE 'HOME' ENTERED AT 15:14:18 ON 08 JUL 2004

=>

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 15:14:29 ON 08 JUL 2004

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10671811

7/8/04

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STRUCTURE FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3  
DICTIONARY FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3

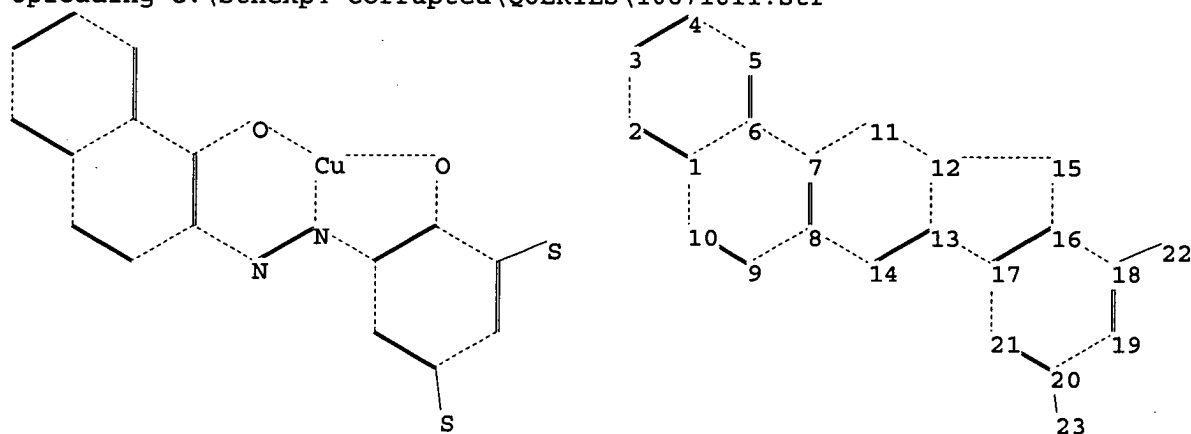
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>  
Uploading C:\Stnexp4 corrupted\QUERIES\10671811.str



chain nodes :

22 23

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

chain bonds :

18-22 20-23

ring bonds :

1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 7-11 8-9 8-14 9-10 11-12 12-13  
12-15 13-14 13-17 15-16 16-17 16-18 17-21 18-19 19-20 20-21

exact/norm bonds :

1-6 1-10 2-3 4-5 6-7 7-11 8-9 8-14 11-12 12-13 12-15 13-14 13-17 15-16  
16-18 17-21 18-22 19-20 20-23

normalized bonds :

1-2 3-4 5-6 7-8 9-10 16-17 18-19 20-21

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:CLASS 23:CLASS

10671811

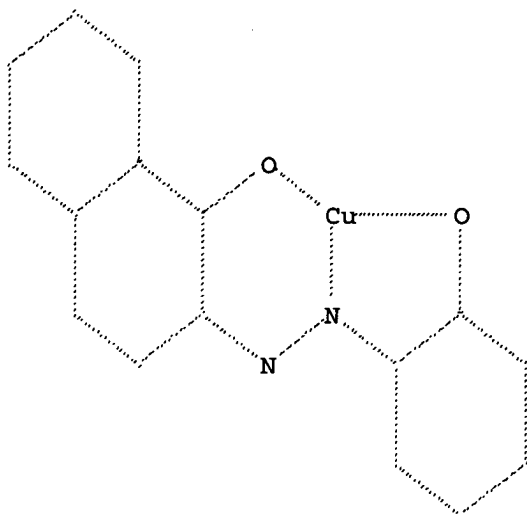
7/8/04

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful

FULL SEARCH INITIATED 15:15:00 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4571 TO ITERATE

100.0% PROCESSED 4571 ITERATIONS

955 ANSWERS

SEARCH TIME: 00.00.01

L2 955 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

155.42

155.63

FILE 'CAPLUS' ENTERED AT 15:15:05 ON 08 JUL 2004

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FILE COVERS 1907 - 8 Jul 2004 VOL 141 ISS 2  
FILE LAST UPDATED: 7 Jul 2004 (20040707/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s l2  
L3 339 L2

=> file registry  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
2.75	158.38

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 15:18:29 ON 08 JUL 2004  
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STRUCTURE FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3  
DICTIONARY FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3

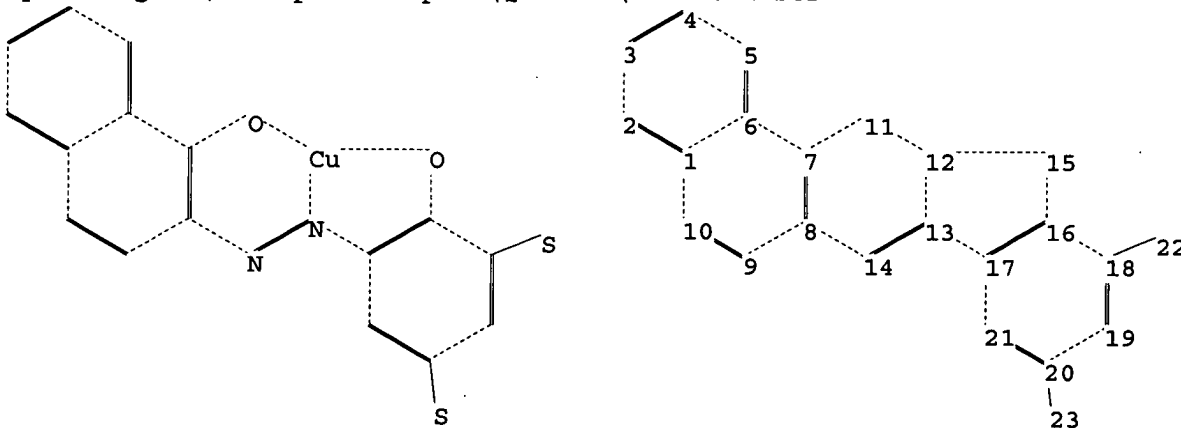
TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>  
Uploading C:\Stnexp4 corrupted\QUERIES\10671811.str



chain nodes :  
22 23

10671811

7/8/04

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

chain bonds :

18-22 20-23

ring bonds :

1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 7-11 8-9 8-14 9-10 11-12 12-13

12-15 13-14 13-17 15-16 16-17 16-18 17-21 18-19 19-20 20-21

exact/norm bonds :

1-6 1-10 2-3 4-5 6-7 7-11 8-9 8-14 11-12 12-13 12-15 13-14 13-17 15-16

16-18 17-21 18-22 19-20 20-23

normalized bonds :

1-2 3-4 5-6 7-8 9-10 16-17 18-19 20-21

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

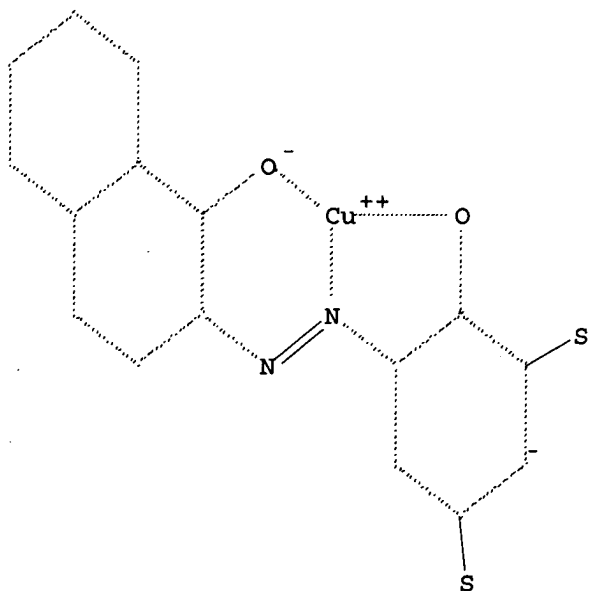
20:Atom 21:Atom 22:CLASS 23:CLASS

L4 STRUCTURE UPLOADED

=> d L4

L4 HAS NO ANSWERS

L4 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 15:21:00 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED

17 ITERATIONS

0 ANSWERS

10671811

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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 93 TO 587  
PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 ful

FULL SEARCH INITIATED 15:21:05 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 508 TO ITERATE

100.0% PROCESSED 508 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

L6 0 SEA SSS FUL L4

=>

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	168.02	326.40

FILE 'REGISTRY' ENTERED AT 15:36:58 ON 08 JUL 2004  
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STRUCTURE FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3  
DICTIONARY FILE UPDATES: 7 JUL 2004 HIGHEST RN 705925-25-3

TS/CA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

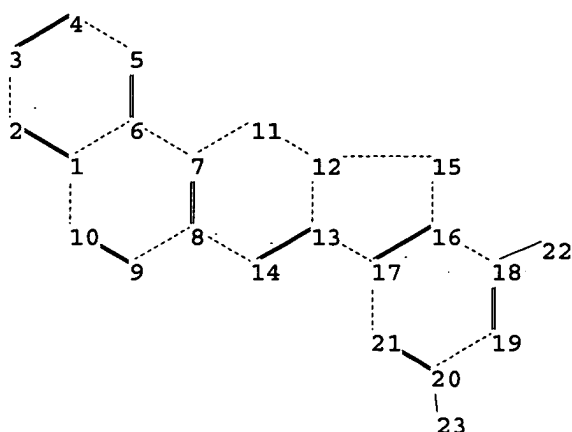
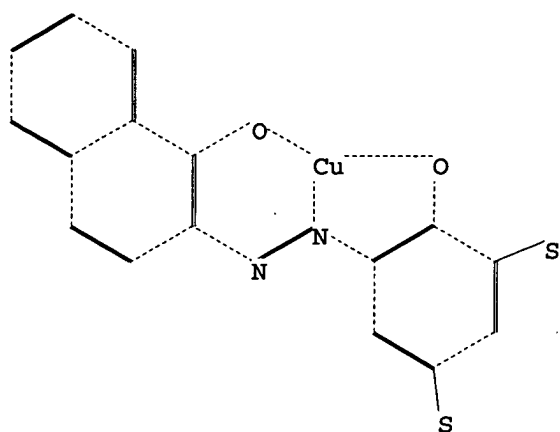
Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

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chain nodes :

22 23

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

chain bonds :

18-22 20-23

ring bonds :

1-2 1-6 1-10 2-3 3-4 4-5 5-6 6-7 7-8 7-11 8-9 8-14 9-10 11-12 12-13

12-15 13-14 13-17 15-16 16-17 16-18 17-21 18-19 19-20 20-21

exact/norm bonds :

1-6 1-10 2-3 4-5 6-7 7-11 8-9 8-14 11-12 12-13 12-15 13-14 13-17 15-16

16-18 17-21 18-22 19-20 20-23

normalized bonds :

1-2 3-4 5-6 7-8 9-10 16-17 18-19 20-21

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:Atom 21:Atom 22:CLASS 23:CLASS

L7 STRUCTURE UPLOADED

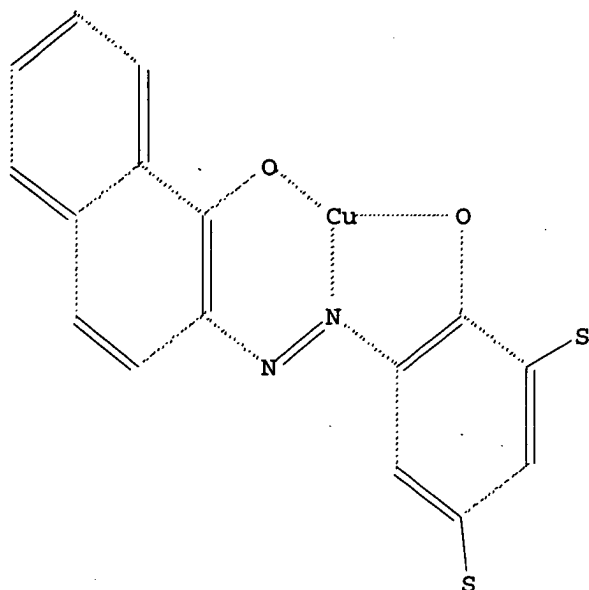
=> d 17

L7 HAS NO ANSWERS

L7 STR

10671811

7/8/04



Structure attributes must be viewed using STN Express query preparation.

=> s 17

SAMPLE SEARCH INITIATED 15:37:31 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 93 TO 587  
PROJECTED ANSWERS: 0 TO 0

L8 0 SEA SSS SAM L7

=> s 17 ful

FULL SEARCH INITIATED 15:37:36 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 508 TO ITERATE

100.0% PROCESSED 508 ITERATIONS  
SEARCH TIME: 00.00.01

61 ANSWERS

L9 61 SEA SSS FUL L7

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

155.42

481.82

FILE 'CAPLUS' ENTERED AT 15:37:40 ON 08 JUL 2004  
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FILE COVERS 1907 - 8 Jul 2004 VOL 141 ISS 2  
FILE LAST UPDATED: 7 Jul 2004 (20040707/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l9

L10 49 L9

=> s l10 and dyes

198462 DYES

L11 48 L10 AND DYES

=> s l10 and ink

67443 INK

39489 INKS

74339 INK

(INK OR INKS)

L12 3 L10 AND INK

=> s l10 and printing

123641 PRINTING

964 PRINTINGS

123836 PRINTING

(PRINTING OR PRINTINGS)

L13 13 L10 AND PRINTING

=> d 1-3 l12

7/8/04

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:253860 CAPLUS  
DN 130:298109  
TI Aqueous ink-jet inks with light resistance  
IN Ishibashi, Daisuke; Ohya, Hidenobu; Onodera, Akira  
PA Konica Co., Japan  
SO Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKKXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11106694	A2	19990420	JP 1997-287587	19971006
PRAI	JP 1997-287587		19971006		

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1988:572118 CAPLUS  
DN 109:172118  
TI Disazo dyes and recording fluids containing the same  
IN Ots, Noriyo; Kobayashi, Masatsune; Suga, Yuko; Miura, Konoe; Takimoto, Hiroshi; Yoneyama, Tomio  
PA Canon K. K., Japan; Mitsubishi Chemical Industries Co., Ltd.  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKKXAF

DT Patent  
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63117079	A2	19880521	JP 1986-262428	19861104
	JP 07116394	B4	19951213		
PRAI	JP 1986-262428		19861104		
OS	MARPAT 109:172118				

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1988:169155 CAPLUS  
DN 108:169155  
TI Water-soluble dye for jet-printing inks  
IN Quayle, Arthur; Stead, Cecil Vivian  
PA Imperial Chemical Industries PLC, UK  
SO Eur. Pat. Appl., 8 pp.  
CODEN: EPXXDW

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 247729	A2	19871202	EP 1987-303686	19870507
	EP 247729	A3	19890315		
	EP 247729	B1	19920122		
	R: CH, DE, FR, GB, IT, LI				
	US 4931550	A	19900605	US 1987-46200	19870505
	JP 63046259	A2	19880227	JP 1987-114914	19870513
	US 4994111	A	19910219	US 1989-443394	19891130
PRAI	GB 1986-11637		19860513		
	GB 1986-17372		19860716		
	US 1987-46200		19870505		

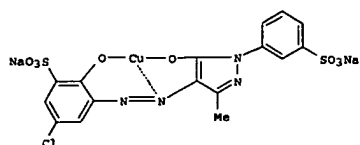
10671811

7/8/04

=> d 1-3 l12 abs bib hitstr

10671811

7/8/04

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
GI

AB Title inks contain metal complex colorants and aliphatic amines, urea, cyclodextrins, or heterocyclic compds. An ink comprising water 67.0, organic solvent mixture 28, a surfactant 0.6, 1 2.0, and methyldiethanolamine 1.5 parts gave prints with good color tone and light resistance.

AN 1999:253860 CAPLUS

DN 130:298109

TI Aqueous ink-jet inks with light resistance

IN Ishibashi, Daisuke; Ohya, Hidenobu; Onodera, Akira

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

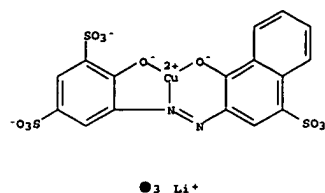
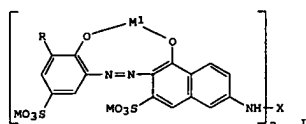
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11106694	A2	19990420	JP 1997-287587	19971006
PRAI JP 1997-287587		19971006		
IT 114093-47-9				

RL: TEM (Technical or engineered material use); USES (Uses)  
(amine (or heterocyclic compound)- and metal complex  
colorant-containing aqueous  
ink-jet inks with light resistance)

RN 114093-47-9 CAPLUS

CN Cuprate (3-), [4-(hydroxy-κO)-5-[[1-(hydroxy-κO)-4-sulfo-2-naphthalenyl]azo-κN]]-1,3-benzenedisulfonato(5-)-, trillithium (9CI)  
(CA INDEX NAME)

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
GI

AB The title magenta fluids showing excellent storability and workability and producing lightfast, water resistant sharp images on plain paper, especially in

ink-jet printing, contain disazo dyes I (R = CO2M, SO3M, NO2, acylamino, Cl; X = CO, triazinediyl, phthaloyl, COC6H4NHYNHC6H4CO; Y =

CO, triazinediyl, phthaloyl; M = alkali metal, NH4, amine residue; M1 = Cu, Ni, Co). 2-Aminophenol-4,6-disulfonic acid was diazotized, coupled with CO[NHClOHS(OH)SO3H-2,5,7]]2, coppered, and salted to give I (R = SO3M; X = CO; M = Na; M1 = Cu) (II). A typical ink for ink-jet printing comprised water 71, diethylene glycol 25, and I 4 parts.

AN 1988:572118 CAPLUS

DN 109:172118

TI Disazo dyes and recording fluids containing the same

IN Ota, Noriyo; Kobayashi, Masaatsu; Suga, Yuko; Miura, Konoe; Takimoto,

( Hiroshi; Yoneyama, Tomio

PA Canon K. K., Japan; Mitsubishi Chemical Industries Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKOXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63117079	A2	19880521	JP 1986-262428	19861104
JP 0716394	B4	19951213		
PRAI JP 1986-262428		19861104		
OS MARPAT 109:172118				
IT 116961-03-6				

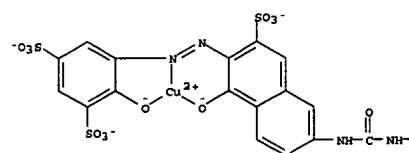
RL: USES (Uses)  
(dye, magenta, for water-thinned inks)

RN 116961-03-6 CAPLUS

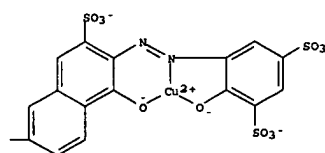
CN Cuprate (6-), [μ-[[5,5'-(carbonylbis(imino(1-hydroxy-3-sulfo-6,2-naphthalenediyl)azo))]bis[4-(4-hydroxy-1,3-benzenedisulfonato)](10-))]di-, hexasodium (9CI) (CA INDEX NAME)

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A



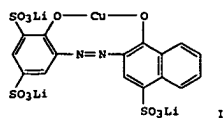
PAGE 1-B



10671811

7/8/04

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
G1



AB I, which has excellent light fastness and adequate substantivity on cellulosic materials (especially paper) and good solubility in water and polar solvents, is prepared and formulated into an ink composition for ink-jet printing. Thus, 2-amino-1-hydroxy-4,6-benzenedisulfonic acid was diazotized and coupled with 4-hydroxy-1-naphthalenesulfonic acid, the azo compound allowed to react with CuSO<sub>4</sub>.H<sub>2</sub>O, and I precipitated by addition of excess LiCl. An ink was prepared by dissolving 2 parts I in 98 parts of a mixture of H<sub>2</sub>O 60, diethylene glycol 30, and N-methyl-2-pyrrolidone 10 parts. The ink was filtered through a Teflon filter (pore size 1 mm), producing an ink which showed no sign of separation or changing color after 6-mo storage in a glass container at

-30° and at +60° for 6 mo.

AN 1988:169155 CAPLUS

DN 108:169155

TI Water-soluble dye for jet-printing inks

IN Quayle, Arthur; Stead, Cecil Vivian

PA Imperial Chemical Industries PLC, UK

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN: CNT 1

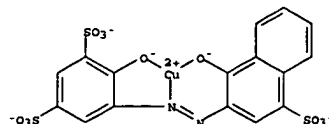
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 247729	A2	19871202	EP 1987-303686	19870507
EP 247729	A3	19890315		
EP 247729	B1	19920122		
R: CH, DE, FR, GB, IT, LI				
US 4931550	A	19900605	US 1987-46200	19870505
JP 63046259	A2	19880227	JP 1987-114914	19870513
US 4994111	A	19910219	US 1989-443394	19891130
PRAI GB 1986-11637		19860513		
GB 1986-17372		19860716		
US 1987-46200		19870505		

IT 114093-47-9P

RL: PREP (Preparation)

(manufacture of, as dye for jet-printing ink)

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
RN 114093-47-9 CAPLUS  
CN Cuprate(3-), [4-(hydroxy-κO)-5-[[1-(hydroxy-κO)-4-sulfo-2-naphthalenyl]azo-κN1]-1,3-benzenedisulfonato(5-)]-, trillithium (9CI)  
(CA INDEX NAME)



● 3 Li<sup>+</sup>

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7/8/04

=> d his

(FILE 'HOME' ENTERED AT 15:14:18 ON 08 JUL 2004)

FILE 'REGISTRY' ENTERED AT 15:14:29 ON 08 JUL 2004

L1 STRUCTURE UPLOADED

L2 955 S L1 FUL

FILE 'CAPLUS' ENTERED AT 15:15:05 ON 08 JUL 2004

L3 339 S L2

FILE 'REGISTRY' ENTERED AT 15:18:29 ON 08 JUL 2004

L4 STRUCTURE UPLOADED

L5 0 S L4

L6 0 S L4 FUL

FILE 'REGISTRY' ENTERED AT 15:36:58 ON 08 JUL 2004

L7 STRUCTURE UPLOADED

L8 0 S L7

L9 61 S L7 FUL

FILE 'CAPLUS' ENTERED AT 15:37:40 ON 08 JUL 2004

L10 49 S L9

L11 48 S L10 AND DYES

L12 3 S L10 AND INK

L13 13 S L10 AND PRINTING

=> d abs bib hitstr l13 not l12

L12 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

=> s l13 not l12

L14 10 L13 NOT L12

=> d abs bib hitstr 1-10

7/8/04

L14 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

GI For diagram(s), see printed CA issue.

AB The title dyes I [A = amino substituent containing Z1 SO<sub>2</sub>Z group; Z = β-sulfatoethyl, β-thiosulfatoethyl, β-phosphatoethyl, β-acetoxyethyl, β-haloethyl, CH<sub>2</sub>CH<sub>2</sub>; Q = chromophoric residue; R, R<sub>1</sub>, R<sub>2</sub> = H, (un)substituted C1-4 alkyl, X, Y = F, Cl, Br, SO<sub>3</sub>H, C1-4 alkylsulfonfyl, phenylsulfonfyl; Z1 = H, C1-4-alkyl, C1-4 alkoxy, halogen, CO<sub>2</sub>H, SO<sub>3</sub>H], useful for dyeing or printing cellulosic fabrics, are prepared. Thus, Na

2-(3'-aminophenyl)amino-4,6-dichloro-1,3,5-triazine-4'-sulfonate was diazotized, coupled with Na

2,6-dihydroxy-3-sulfomethyl-4-methylpyridine salt, the intermediate condensed with Na 1,3-phenylenediamine-4-sulfonate and then with cyanuric chloride, and H<sub>2</sub>N(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>SO<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>Cl added, forming II, which dyed cellulosic fibers fast greenish yellow shades.

AN 1991:64248 CAPLUS

DN 114:64248

TI Reactive dyes containing vinylsulfonfylalkylamino groups bound to a bis(triazinylamino)benzene group

IN Tzikas, Athanassios

PA Ciba-Geigy Corp., USA

SO U.S., 61 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4925928	A	19900515	US 1988-210678	19880623
PRAI US 1988-210678		19880623		
OS MARPAT 114:64248				
IT 120471-68-3P				

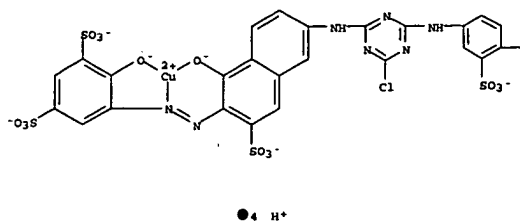
RL: PREP (Preparation)  
(manufacture of, as bifunctional reactive dye)

RN 120471-68-3 CAPLUS

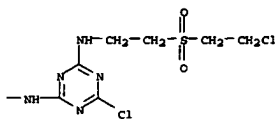
CN Cuprate(4-), [5-[[6-[[4-chloro-6-[[[4-[[4-chloro-6-[[2-[[2-chloroethyl)sulfonfyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfophenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonate(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

L14 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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PAGE 1-B



L14 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

GI For diagram(s), see printed CA issue.

AB The title dyes DQ [R1CH2C(SO2Z1)H(CH2)2-6SO2Z]n (D = chromophoric residue; Q = bridging group; Z, Z1 = β-sulfatoethyl, β-thiosulfatoethyl, β-phosphatoethyl, β-acyloxyethyl, β-haloethyl, vinyl; n = 1, 2), useful for dyeing or printing of cellulose-containing fibers, are prepared. The hydrochloride salt of

4-H<sub>2</sub>NCH<sub>2</sub>CONHCH<sub>2</sub>C(SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>Cl)H(CH<sub>2</sub>)<sub>2</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>Cl was diazotized and coupled with

1-(2-sulfophenyl)-3-carboxy-5-pyrazolone, producing I, which dyed cotton in a fast, yellow shade.

AN 1989:615963 CAPLUS

DN 111:215963

TI Reactive dyes for cellulosic-containing fibers

IN Tzikas, Athanassios; Herzig, Paul

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 66 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 309406	A1	19890329	EP 1988-810630	19880915
EP 309406	B1	19920624		
EP 309406	B2	20000712		

R: BE, CH, DE, ES, FR, GB, IT, LI

ES 2042796 T3 19911216 ES 1988-810630 19880915

BR 8004937 A 19890502 BR 1988-4937 19880923

JP 01158076 A2 19890621 JP 1988-237556 19880924

US 5081296 A 19920114 US 1990-510384 19900417

PRAI CH 1987-3699 A 19870924

US 1988-248872 B1 19880923

OS MARPAT 111:215963

IT 122317-15-1P

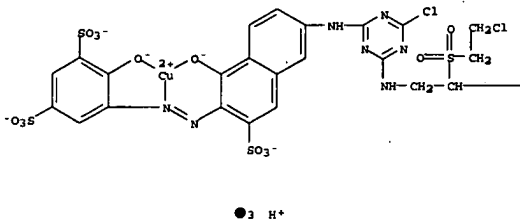
RL: PREP (Preparation)  
(manufacture of, as reactive dye for cellulose-containing fibers)

RN 122317-15-1 CAPLUS

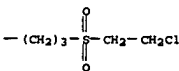
CN Cuprate(2-), [5-[[6-[[4-[[2,5-bis-[[2-chloroethyl)sulfonfyl]pentyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonate(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

L14 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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L14 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
GI

L14 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title dyes I [A = an amino substituent containing SO<sub>2</sub>Z group(s); Z = β-sulfatoethyl, β-thiosulfatoethyl, β-phosphatoethyl, β-acyloxyethyl, β-haloethyl, CH<sub>2</sub>CH<sub>2</sub>; A<sub>1</sub>, A<sub>2</sub>, R = H, (un)substituted C<sub>1-4</sub> alkyl; D = chromophoric residue; Q = H, C<sub>1-4</sub> alkyl, CO<sub>2</sub>H, C<sub>1-4</sub> alkoxy, halogen, SO<sub>3</sub>H; X, Y = F, Cl, Br, SO<sub>3</sub>H, C<sub>1-4</sub> alkylsulfonyl, phenylsulfonyl], useful for dyeing or printing of cellulose-containing fabrics, are prepared. The Na salt of 2-(3'-aminophenyl)amino-4,6-dichloro-1,3,5-triazine-4'-sulfonic acid was diazotized and coupled with the Na salt of 2,6-dihydroxy-3-sulfomethyl-4-methylpyridine, the intermediate condensed with the condensate of 1,3-(H<sub>2</sub>N)2C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>Na-4, and cyanuric chloride and the intermediate condensed with HCl.H<sub>2</sub>N(CH<sub>2</sub>)<sub>2</sub>O(CH<sub>2</sub>)<sub>2</sub>SO<sub>2</sub>(CH<sub>2</sub>)<sub>2</sub>Cl, forming II, which dyed cellulose fabrics in a fast greenish yellow shade.

1989:424960 CAPLUS

DN 111:24960

TI Bifunctional reactive triazine group-containing dyes

IN Tzikas, Athanasios

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 72 pp.

CODEN: EPXKDW

DT Patent

LA German

FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 297044	A2	19881228	EP 1988-810410	19880615
EP 297044	A3	19890201		
EP 297044	B1	19920819		
R: BE, CH, DE, ES, FR, GB, IT, LI				
ES 2051887	T3	19940701	ES 1988-810410	19880615
BR 8803093	A	19890124	BR 1988-3093	19880623
JP 01022970	A2	19890125	JP 1988-155112	19880624
PRAI CH 1987-2379	A2	19870624		
OS MARPAT 111:24960				
IT 120471-68-2P				

PRAI CH 1987-2379

OS MARPAT 111:24960

IT 120471-68-2P

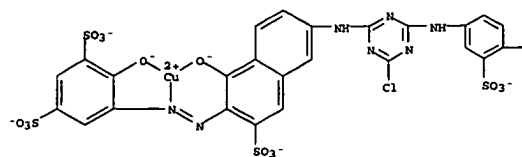
RL: PREP (Preparation)

(manufacture of, as bifunctional reactive dye for

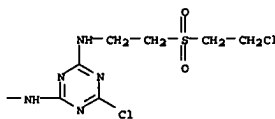
cellulose-containing fabrics)

RN 120471-68-3 CAPLUS

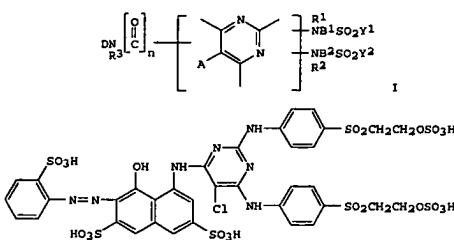
CN Cuprate(4-), [5-[[[4-chloro-6-[[[4-chloro-6-[[2-[[2-chloroethyl)sulfonyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfonyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

●4 H<sup>+</sup>

PAGE 1-B

L14 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
GI

L14 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)



II

AB The title reactive dyes I [D = dye residue; n = 0.1; A = H, Cl, Br, Me, NO<sub>2</sub>, CN, carboxy, sulfo; R<sub>1</sub>-R<sub>3</sub> = H, (un)substituted alkyl; B<sub>1</sub>, B<sub>2</sub> = (un)substituted phenylene, naphthylene; Y<sub>1</sub>, Y<sub>2</sub> = CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>, vinyl; L = alkali-removable group], useful for dyeing and printing cotton, are prepared. 2,4,6-Trifluoro-5-chloropyrimidine was condensed with 1-amino-8-hydroxy-7-(o-sulfonylphenylazo)-3,6-naphthalenedisulfonic acid, p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OSO<sub>3</sub>H, and m-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OSO<sub>3</sub>H, and salted to give II (Na salt), λ<sub>max</sub> 540 nm (fabric color not specified).

1989:116656 CAPLUS

DN 110:116656

TI Pyrimidine compounds for dyeing and printing fiber materials

IN Morimitsu, Toshihiko; Omura, Takashi

PA Sumitomo Chemical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKKXAF

DT Patent

LA Japanese

FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63207860	A2	19880829	JP 1987-42224	19870224
JP 08026237	B4	19960313		
PRAI JP 1987-42224		19870224		
OS MARPAT 110:116656				
IT 65230-79-7				

PRAI JP 1987-42224

OS MARPAT 110:116656

IT 65230-79-7

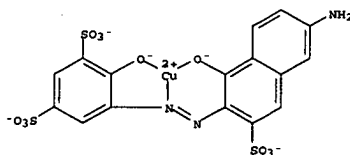
RL: USES (Uses)

(in reactive azo dye manufacture)

RN 65230-79-7 CAPLUS

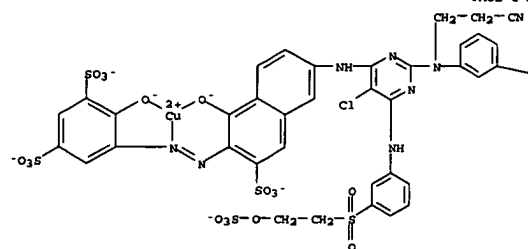
CN Cuprate(3-),

[5-[(6-amino-2-hydroxy-3-sulfo-2-naphthalenyl)azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

●3 H<sup>+</sup>

IT 119541-55-8P  
RL: IMP (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(manufacture of, as reactive dye for cotton)  
RN 119541-55-8 CAPLUS  
CN Cuprate(5-), [5-[[[5-chloro-2-[(2-cyanoethyl)3-[[2-(sulfooxy)ethyl)sulfonyl]phenyl]amino]-6-[[3-[[2-(sulfooxy)ethyl)sulfonyl]phenyl]amino]-4-pyrimidinyl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(7-)]-, pentahydrogen (9CI) (CA INDEX NAME)

PAGE 1-A

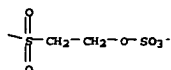
●5 H<sup>+</sup>

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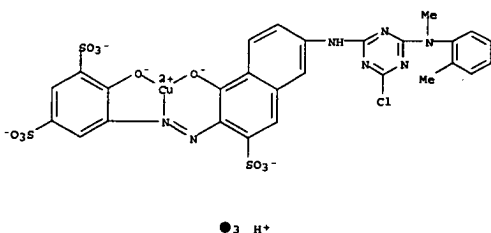


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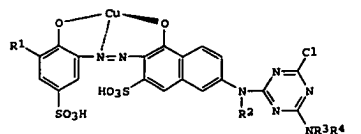
L14 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
PAGE 1-B



L14 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
benzenedisulfonato(5-))-, trihydrogen (9CI) (CA INDEX NAME)



L14 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
GI



AB The title compds. I [R1 = H, Cl, Br, CO2H, SO3H; R2 = H, Cl-4 alkyl; R3 = H, Cl-4 alkyl, Cl-4 hydroxyalkyl; R4 = (un)substituted Cl-6 alkyl, (un)substituted Ph] are prepared and are useful for printing of leather, natural or synthetic polyamide fabrics, natural cellulose fabric, and rayon. 2,4,6-H2N(HO3S)2C6H2OH was diazotized and coupled with 2-amino-5-hydroxy-7-naphthalenesulfonic acid, the intermediate reacted with CuSO4, condensed with cyanuric chloride, and the dichlorotriazine group-containing intermediate condensed with 2-MeC6H4NHMe forming I (R1 = SO3H, R2 = H, R3 = Me, R4 = 2-MeC6H4), which dyed cotton and rayon in a fast ruby-red shade.

AN 1987:556363 CAPLUS  
DN 107:156363  
TI Fiber-reactive, metal-containing monoazo compounds  
IN Koch, Werner  
PA Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.  
SO Ger. Offen., 10 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3638817	A1	19870527	DE 1986-3638817	19861113
CH 671232	A	19890815	CH 1986-4493	19861111
FR 2590264	A1	19870522	FR 1986-16054	19861117
FR 2590264	B1	19880805		
GB 2183248	A1	19870603	GB 1986-27405	19861117
GB 2183248	B2	19891101		
JP 62127354	A2	19870609	JP 1986-274211	19861119
US 5106958	A	19920421	US 1991-673435	19910322
PRAI DE 1985-3541159		19851121		
US 1986-931384		19861114		
US 1988-289170		19881223		

IT 110634-75-8P  
RL: PREP (Preparation)  
(manufacture of, as reactive ruby red dye for cellulose or rayon)  
RN 110634-75-8 CAPLUS  
CN Cuprate(3-), [5-[[[4-chloro-6-(methyl(2-methylphenyl)amino)-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-

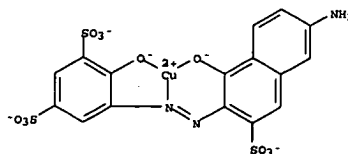
L14 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

AB Reactive dye mixts. R[ZNR1X]n (R = organic dye residue; R1 = H, Cl-4 alkyl; X = 10-60% 5,6-dichloro-2-fluoro-4-pyrimidinyl and 40-90% 2,5-dichloro-6-fluoro-4-pyrimidinyl; Z = aromatic or heterocyclic bridging group; n = 1, 2) are useful colorants for cellulose and synthetic or natural polypeptide textiles. 2,4-(H2N)2C6H3SO3H was condensed with a mixture of .apprx.28% 4,5-dichloro-2,6-difluoropyrimidine and .apprx.72% 2,5-dichloro-4,6-difluoropyrimidine. This condensate mixture was diazotized and coupled with 1-ethyl-6-hydroxy-4-methyl-3-(sulfomethyl)-2-pyridone, forming a reactive mixture which dyed cotton a strong greenish-yellow color.

AN 1987:460644 CAPLUS  
DN 107:60644  
TI Reactive dye mixtures  
IN Jaeger, Horst; Klauke, Erich; Kysela, Ernst  
PA Bayer A.-G., Fed. Rep. Ger.  
SO Ger. Offen., 80 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3426008	A1	19860123	DE 1984-3426008	19840714
EP 168703	A2	19860122	EP 1985-108115	19850629
EP 168703	A3	19860312		
JP 61036367	A2	19860221	JP 1985-150322	19850710
PRAI DE 1984-3426008		19840714		
IT 65230-79-7				

RL: USES (Uses)  
(coupling of diazotized, with  
(dichloro-2-fluoropyrimidinylamino)hydroxy-  
phthalenedisulfonic acid)  
RN 65230-79-7 CAPLUS  
CN Cuprate(3-),  
[5-[[[6-amino-2-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-))]-, trihydrogen (9CI) (CA INDEX NAME)



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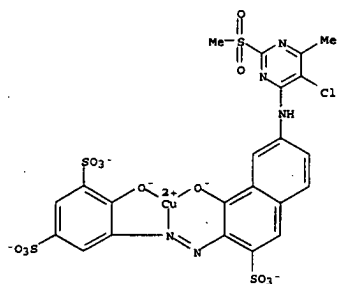
L14 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

L14 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB Sixty-five fiber-reactive anthraquinone, azo, metallized azo, nitro, and phthalocyanine dyes containing the  
 5-chloro-6-methyl-2-(methylsulfonyl)-4-pyrimidinyl or the 6-methyl-2-(methylsulfonyl)pyrimidinyl residue and 6 fiber-reactive dyes containing the bis(phenylsulfonyl)-s-triazinyl residue  
 were prepared and were used to dye cotton, wool, and polyamide fibers. Thus, 2,4,8-H<sub>2</sub>NC<sub>10</sub>H<sub>5</sub>(SO<sub>3</sub>Na)<sub>2</sub> (131-27-1) was diazotized and coupled with 3-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>Me (108-44-1), the aminoazo derivative [6629-26-1] salted, heated  
 with 4-chloro-6-methyl-2-(methylsulfonyl)pyrimidine (55329-22-1) in the presence of Na<sub>2</sub>CO<sub>3</sub>, and salted to give reactive dye (I) [13542-04-6], printing cellulosic textiles a reddish yellow shade.  
 AN 1975:595209 CAPLUS  
 DN 83:195209  
 TI Dyes containing a fiberreactive alkylsulphonylpyrimidinyl group  
 IN Schuendehuetten, Karl H.; Trautner, Kersten  
 PA Bayer A.-G., Fed. Rep. Ger.  
 SO U.S., 65 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN: CNT 1  

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3853840	A	19741210	US 1970-22365	19700324
PRAI	US 1965-512542		19651208		
IT	14871-37-SP		15318-18-OP		
RL	IMP (Industrial manufacture); PREP (Preparation) (preparation and cellulosic fiber dyeing by)				
RN	14871-37-5	CAPLUS			
CN	Cuprate(3-), [5-[(7-[(5-chloro-6-methyl-2-(methylsulfonyl)-4-pyrimidinyl]amino)-1-hydroxy-3-sulfo-2-naphthalenyl]azo)-4-hydroxy-1,3-benzenedisulfonato(5-)]-], trisodium (9CI) (CA INDEX NAME)				

L14 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

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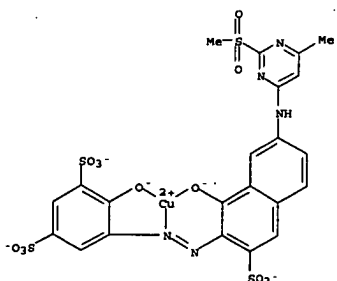


PAGE 2-A

● 3 Na<sup>+</sup>

RN 15318-18-0 CAPLUS  
 CN Copper, [tri(hydrogen 4-hydroxy-5-[(1-hydroxy-7-[(6-methyl-2-(methylsulfonyl)-4-pyrimidinyl]amino)-3-sulfo-2-naphthalenyl]azo)-m-benzenedisulfonato(2-)]-], trisodium salt (8CI) (CA INDEX NAME)

PAGE 1-A

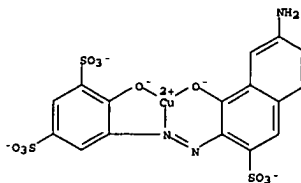


L14 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 2-A

● 3 Na<sup>+</sup>

IT 55348-24-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with chloro(methylsulfonyl)methylpyrimidine)  
 RN 55348-24-8 CAPLUS  
 CN Cuprate(3-),  
 [5-[(7-amino-1-hydroxy-3-sulfo-2-naphthalenyl]azo)-4-hydroxy-1,3-benzenedisulfonato(5-)]-], trisodium (9CI) (CA INDEX NAME)



● 3 Na<sup>+</sup>

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L14 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB The title chlorodifluoropyrimidine dyes (I; R = H, Me; Q = anthraquinone, azo, metal complex azo, nitro, or Cu phthalocyanine dye residue), useful for dyeing cellulose and wool wetfast shades, were prepared by treating amino dyes with 5-chloro-2,4,6-trifluoropyrimidine (II). For example, diazotized 2-aminonaphthalene-4,8-disulfonic acid was coupled with m-toluidine, the azo dye dissolved in water, Me<sub>2</sub>CO and NaOH added, and the mixture treated with II at 20-30 deg. and pH 5.5-6 to give

2-[4-(5-chloro-2,6-difluoro-4-pyrimidinylamino)-o-tolylazo]naphthalene-4,8-disulfonic acid [34086-94-7], printing cellulose fabric wash- and lightfast reddish yellow. Similarly, 65 other I were prepared

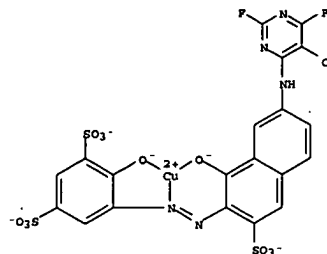
AN 1972:60924 CAPLUS  
 DN 76:60924  
 TI Fiber-reactive dyes  
 IN Bien, Hans S.; Klauke, Erich  
 PA Farbenfabriken Bayer A.-G.  
 SO Brit. Amended, 75 pp.  
 CODEN: BSXXAH  
 DT Patent  
 LA English  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 1169254	A	19700811	GB 1967-40774	19670906
PRAI DE 1966-F50181	A	19660910		
DE 1967-F51942	A	19670325		

IT 36374-01-3P  
 RL: IMP (Industrial manufacture); PREP (Preparation)  
 (preparation of)  
 RN 36374-01-3 CAPLUS  
 CN Cuprate(3-),  
 [4-[[7-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

L14 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

PAGE 1-A

● 3 Na<sup>+</sup>

PAGE 2-A

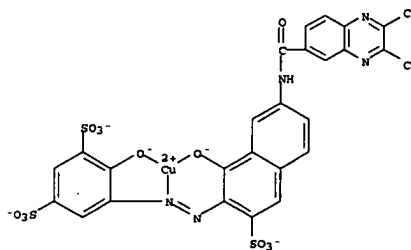
L14 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
 AB Cu, Cr and Co complexes of azo dyes containing a 2,3-dichloro- or 2,3-dibromoquinoxaline group, useful for dyeing and printing cellulose fibers (I) fast shades, were prepared. Thus, 51.6 parts Cu complex

(II) of 2,4-H<sub>2</sub>N(HO<sub>3</sub>)C<sub>6</sub>H<sub>3</sub>OH (III) + 2,5,7-H<sub>2</sub>N(HO)C<sub>10</sub>H<sub>5</sub>SO<sub>3</sub>H was dissolved at pH 7 in 1500 parts H<sub>2</sub>O, 27 parts powdered 2,3-dichloro-6-quinoxalinecarbonyl chloride (IV) added to 20-30° with stirring, the mixture adjusted to pH 5-7 with Na<sub>2</sub>CO<sub>3</sub> solution, salted, filtered, and dried in vacuo at 40-50° to give a fast rubine dye for I. Similarly, the following dyes were prepared (reactants and shade on I given): Cu complex (V) of III + 2,7,5-HO(EtNH)C<sub>10</sub>H<sub>5</sub>SO<sub>3</sub>H, 2,3-dichloro-6-quinoxalinesulfonyl chloride (VI) (m.p. 86-7°), rubine; Cr complex of 2,5,3-Cl(HO) (HO<sub>3</sub>S)C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> + 1-[3-(3-(aminophenyl)sulfonylimidosulfonyl)phenyl]-3-methyl-5-pyrazolone, IV, yellow brown; Cu complex of 2,3,5-HO(HO<sub>3</sub>S)2C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> + 2,8,6-H<sub>2</sub>N(HO)C<sub>10</sub>H<sub>5</sub>SO<sub>3</sub>H, IV, rubine; Cu complex of 5,2,4-Cl(HO) (HO<sub>3</sub>S)C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> + 2,6,8-HO(MeNH)C<sub>10</sub>H<sub>5</sub>SO<sub>3</sub>H, IV, violet; V, 2,3-dichloro-7-methyl-6-quinoxalinesulfonyl chloride (m.p. 103°), rubine; V, 2,3,7-trichloro-6-quinoxalinesulfonyl chloride, rubine; V, 2,3-dibromo-6-quinoxalinesulfonyl chloride, rubine; II, VI, rubine; a mixture of 2:1 Cr and 2:1 Co complex of 2,3,5-HO(O<sub>2</sub>N) (HO<sub>3</sub>S)C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> + 1,8,3,6-H<sub>2</sub>N(HO)C<sub>10</sub>H<sub>4</sub>(SO<sub>3</sub>H)<sub>2</sub>, IV, black.

AN 1965:59434 CAPLUS  
 DN 62:59434  
 OREF 62:10563H,10564a-b  
 TI Fiber reactive metallized azo dyes  
 IN Siegel, Edgar; Sasse, Klaus  
 PA Farbenfabriken Bayer A.-G.  
 SO 9 pp.  
 DT Patent  
 LA Unavailable  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 1186160		19650128	DE	19610207
IT 14836-74-9	Copper, [trihydrogen 5-[[7-(2,3-dichloro-6-quinoxalinecarboxamido)-1-hydroxy-3-sulfo-2-naphthyl]azo]-4-hydroxy-m-benzenedisulfonato(2-)]-, trisodium salt			
	(preparation of)			
RN 14836-74-9	CAPLUS			
CN Cuprate(3-), [5-[[7-[[[(2,3-dichloro-6-quinoxaliny)carbonyl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)				

L14 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

● 3 Na<sup>+</sup>

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L14 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN  
AB Condensation compds. of 3- or 2-chloro- and 2,3-dichloroquinoxaline  
deriva. with azo, anthraquinone, or phthalocyanine dyes are H<sub>2</sub>O-soluble

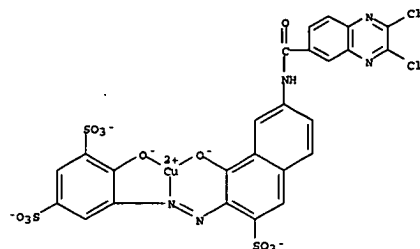
and suitable for dyeing or printing cellulosic and other materials.  
Thus, 2,4,8-H<sub>2</sub>N(NaO<sub>3</sub>S)2C<sub>10</sub>H<sub>5</sub> (I) 34.7 was diazotized and coupled with  
3-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>Me (III) 10.7 parts. The product in aqueous NaOH was mixed and  
stirred with 26.5 parts 2,3-dichloro-6-quinoxalinecarbonyl chloride (III)  
(m. 116°, b<sub>0.05</sub> 144°) in 100 parts C<sub>6</sub>H<sub>6</sub>, heated to 35  
40°, neutralized with Na<sub>2</sub>CO<sub>3</sub>, and 80 parts NaCl added. The dye was  
filtered and dried at 40-50°. Printed on cellulose, it gave a  
reddish yellow color, fast to washing and light. Similarly, dyes were  
prepared (reactants and color of dye on cellulosic fabric given): I →  
II, 2,3-dichloro-6-isocyanatoquinoxaline, reddish yellow; I →  
3-MeHNC<sub>6</sub>H<sub>4</sub>Me, 2,3-dichloro-6-quinoxalinesulfonyl chloride (IV), reddish  
yellow; 2-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H (V) → [1,8,3,6-H<sub>2</sub>N(HO)(NaO<sub>3</sub>S)2C<sub>10</sub>H<sub>4</sub> (VI),  
III], bluish red [2,4-(H<sub>2</sub>N)2C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>Na (VII), III] →  
1,8,3,6-(BzNH)(HO)(NaO<sub>3</sub>S)2C<sub>10</sub>H<sub>4</sub>, bluish red; Cu complex of  
[3,4-H<sub>2</sub>N(HO)C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>H → 2,5,7-H<sub>2</sub>N(HO)(HO<sub>3</sub>S)C<sub>10</sub>H<sub>5</sub>], III, ruby; Cu  
phthalocyaninetetrasulfonyl chloride, VII, III, blue; 1-amino-4-bromo-2-  
anthraquinonesulfonic acid, [4,2-H<sub>2</sub>N(HO<sub>3</sub>S)C<sub>6</sub>H<sub>3</sub>]2, III, blue; Cr complex

of [3,4,5-Cl(HO)(H<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>SO<sub>3</sub>H → 1 - [3-(3-  
aminophenylsulfonylsulfamoylphenyl)-3-methyl-5-pyrazolone], III, yellow  
brown; V → [VI, 2- or 3-chloro-6-quinoxalinecarbonyl chloride],  
red; V → [VI, III, H<sub>3</sub>CH<sub>2</sub>CO<sub>2</sub>Na], red; 6-amino-2,3-  
dichloroquinoxaline (VIII) → 1-(2,5-dichloro-4-sulfohenyl)-3-  
methyl-5-pyrazolone, reddish yellow; 2,1,7-H<sub>2</sub>N(HO<sub>3</sub>S)2C<sub>10</sub>H<sub>5</sub>  
[2,5,7-MeNH(HO)(NaO<sub>3</sub>S)C<sub>10</sub>H<sub>5</sub>, III], reddish orange; 2,5-H<sub>2</sub>N(AcNH)C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>H  
→ 2,5,7-H<sub>2</sub>N(HO<sub>3</sub>S)2C<sub>10</sub>H<sub>5</sub>, III, yellowish orange;  
2,3,6,8-H<sub>2</sub>N(HO<sub>3</sub>S)2C<sub>10</sub>H<sub>4</sub> → 3-AcHNC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, III, reddish yellow;  
2,4,6-H<sub>2</sub>N(HO<sub>3</sub>S)2C<sub>6</sub>H<sub>2</sub>OH → 2,8,6-H<sub>2</sub>N(HO)(HO<sub>3</sub>S)C<sub>10</sub>H<sub>5</sub>, III, ruby; [VII,  
III] → 1,8,3,6-(AcNH)(HO)(HO<sub>3</sub>S)2C<sub>10</sub>H<sub>4</sub>, bluish red;  
2,5-H<sub>2</sub>N(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>H → 1-(2-chloro-5-sulfohenyl)-3-methyl-5-  
pyrazolone, III, yellow;

2,5-(4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH)(2,4-O<sub>2</sub>N(NaO<sub>3</sub>S)C<sub>6</sub>H<sub>3</sub>NH)C<sub>6</sub>H<sub>3</sub>SO<sub>3</sub>Na,  
III, brown violet; PhNH<sub>2</sub> → [VI, III, 3-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>Na], bluish red; V  
→ [VI, 2,3-dichloro-5-quinoxalinecarbonyl chloride], bluish red;  
VIII → PhN(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>2</sub>, orange; VIII → PhOH, reddish yellow;  
di-Na  
1-amino-4-(2'-methyl-3'-aminoanilino)anthraquinone-2,5'-disulfonate,  
III, blue; equimolar mixture of the N-(3-amino-4-sulfohenyl) mono-and  
diamides of Cu 3,3',3''-phthalocyaninetrisulfonic acid, III, turquoise; V  
→ [VI, N-methyl-N-(2,3-dichloro-6-quinoxalinecarbonyl)glycyl  
chloride], bluish red; 1,4-HO(HO<sub>3</sub>S)C<sub>10</sub>H<sub>6</sub> → [3,4,6-  
Me(H<sub>2</sub>N)(HO<sub>3</sub>S)C<sub>6</sub>H<sub>2</sub>]2 → PhOH, IV, scarlet.

AN 1963:429002 CAPLUS  
DN 59:29002  
OREF 59:5299d-f,5300a-c  
TI Quinoxaline dyes  
IN Siegel, Edgar; Sasse, Klaus  
PA Farbenfabriken Bayer A.-G.  
SO 83 pp.  
DT Patent  
LA Unavailable  
PATENT NO. KIND DATE APPLICATION NO. DATE

L14 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
PI BE 613586 19620807 BR  
PRAI DE 19610207  
IT 14836-74-9, Copper, [trihydrogen 5-[[7-(2,3-dichloro-6-  
quinoxalinecarboxamido)-1-hydroxy-3-sulfo-2-naphthyl]azo]-4-hydroxy-m-  
benzenedisulfonato(2-)]-, trisodium salt  
(preparation of)  
RN 14836-74-9 CAPLUS  
CN Cuprate(3-), [5-[[7-[[[(2,3-dichloro-6-quinoxaliny)carbonyl]amino]-1-  
hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-  
-, trisodium (9CI) (CA INDEX NAME)



● 3 Na+

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=> file uspatall  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
76.34	558.16

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-9.56	-9.56

CA SUBSCRIBER PRICE

FILE 'USPATFULL' ENTERED AT 15:40:56 ON 08 JUL 2004  
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 15:40:56 ON 08 JUL 2004  
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d his

(FILE 'HOME' ENTERED AT 15:14:18 ON 08 JUL 2004)

FILE 'REGISTRY' ENTERED AT 15:14:29 ON 08 JUL 2004

L1 STRUCTURE UPLOADED  
L2 955 S L1 FUL

FILE 'CAPLUS' ENTERED AT 15:15:05 ON 08 JUL 2004

L3 339 S L2

FILE 'REGISTRY' ENTERED AT 15:18:29 ON 08 JUL 2004

L4 STRUCTURE UPLOADED  
L5 0 S L4  
L6 0 S L4 FUL

FILE 'REGISTRY' ENTERED AT 15:36:58 ON 08 JUL 2004

L7 STRUCTURE UPLOADED  
L8 0 S L7  
L9 61 S L7 FUL

FILE 'CAPLUS' ENTERED AT 15:37:40 ON 08 JUL 2004

L10 49 S L9  
L11 48 S L10 AND DYES  
L12 3 S L10 AND INK  
L13 13 S L10 AND PRINTING  
L14 10 S L13 NOT L12

FILE 'USPATFULL, USPAT2' ENTERED AT 15:40:56 ON 08 JUL 2004

=> s l12

L15 2 L12

=> d abs bib fhitr 1-2

7/8/04

L15 ANSWER 1 OF 2 USPATFILL on STN  
AB The dye of the formula: ##STR1## which is suitable for use in aqueous inks, especially for ink jet printing.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

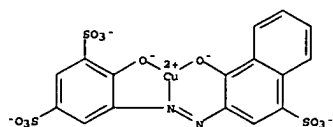
AN 91:14819 USPATFILL  
TI Ink-jet ink containing lithium salt of copper complex monoazo dye  
IN Quayle, Arthur, Bury, England  
Stead, Cecil V., Manchester, England  
PA Canon Kabushiki Kaisha, Tokyo, Japan (non-U.S. corporation)  
PI US 4994111 19910219  
AI US 1989-443394 19891130 (7)  
RLI Division of Ser. No. US 1987-46200, filed on 5 May 1987, now patented, Pat. No. US 4931550  
PRAI GB 1986-11637 19860513  
GB 1986-17372 19860716  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Dixon, Jr., William R.; Assistant Examiner: Klemanski, Helene

LREP Cushman, Darby & Cushman  
CLMN Number of Claims: 6  
ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 309

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 114093-47-99  
(manufacture of, as dye for jet-printing ink)

RN 114093-47-9 USPATFILL  
CN Cuprate(3-), [4-(hydroxy-κO)-5-[[[1-(hydroxy-κO)-4-sulfo-2-naphthalenyl]azo-κN1]-1,3-benzenedisulfonato(5-)]-], trillithium (9CI) (CA INDEX NAME)



●3 Li+

L15 ANSWER 2 OF 2 USPATFILL on STN  
AB The dye of the formula: ##STR1## which is suitable for use in aqueous inks, especially for ink jet printing.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

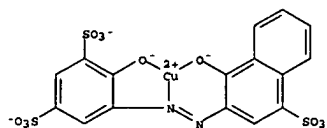
AN 90:44617 USPATFILL  
TI Lithium salt of copper complex monoazo dye  
IN Quayle, Arthur, Bury, England  
Stead, Cecil V., Manchester, England  
PA Imperial Chemical Industries PLC, London, England (non-U.S. corporation)  
PI US 4931550 19900605  
AI US 1987-46200 19870505 (7)  
PRAI GB 1986-11637 19860513  
GB 1986-17372 19860716  
DT Utility  
FS Granted

EXNAM Primary Examiner: Higel, Floyd D.  
LREP Cushman, Darby and Cushman  
CLMN Number of Claims: 1  
ECL Exemplary Claim: 1  
DRWN 4 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 293

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 114093-47-99  
(manufacture of, as dye for jet-printing ink)

RN 114093-47-9 USPATFILL  
CN Cuprate(3-), [4-(hydroxy-κO)-5-[[[1-(hydroxy-κO)-4-sulfo-2-naphthalenyl]azo-κN1]-1,3-benzenedisulfonato(5-)]-], trillithium (9CI) (CA INDEX NAME)



●3 Li+

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=> s l14

L16            11 L14

=> d abs bib fhitr 1-11

7/8/04

L16 ANSWER 1 OF 11 USPATFULL on STN

AB Compounds of the formula ##STR1## and salts thereof, wherein R.sub.1 is hydrogen, chloro, bromo, carboxy or sulfo.

R.sub.2 is hydrogen or C.sub.1-4 alkyl,

R.sub.3 is hydrogen, C.sub.1-4 alkyl or C.sub.1-4 hydroxyalkyl, and

R.sub.4 is C.sub.1-6 alkyl monosubstituted by carboxy or sulfo; C.sub.2-6 alkyl monosubstituted by hydroxy or --OR.sub.5; C.sub.2-6 dihydroxyalkyl the hydroxy groups of which are on different carbon atoms; phenyl or phenyl monosubstituted or disubstituted by C.sub.1-4 alkyl.

wherein R.sub.5 is C.sub.2-4 hydroxyalkyl, with the proviso that when each of R.sub.1, R.sub.2 and R.sub.3 is hydrogen, R.sub.4 is other than 2-hydroxyethyl, and mixtures of such complexes and salts, useful for dyeing or printing hydroxy group- or nitrogen-containing organic substrates, for example leather and fiber materials containing or consisting of natural or synthetic polyamides or of natural or regenerated cellulose, preferably textile material containing or consisting of cotton.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 92:31980 USPATFULL  
TI 1:1 Copper complexes of further unsubstituted or substituted 6-(2'-chloro-4'-substituted amino-1,3,5-triazin-6'-ylamino)-1-hydroxy-2-(2'-hydroxy-5'-sulfonylphenylazo)-3-sulfonaphthalenes  
IN Koch, Werner, Oberwil, Switzerland  
PA Sandoz Ltd., Basel, Switzerland (non-U.S. corporation)  
PI US 5106958 19920421  
AI US 1991-673435 19910322 (7)  
RLI Continuation of Ser. No. US 1988-289170, filed on 23 Dec 1988, now abandoned which is a continuation of Ser. No. US 1986-931384, filed on 14 Nov 1986, now abandoned  
PRAI DE 1985-3541159 19851121  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Powers, Fiona T.  
LREP Sharkin, Gerald D., Vils, Richard E., Kassenoff, Melvyn M.  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 441

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 110634-75-89  
(manufacture of, as reactive ruby red dye for cellulose or rayon)  
RN 110634-75-8 USPATFULL  
CN Cuprate(3-), [5-[[[6-[[4-chloro-6-[methyl(2-methylphenyl)amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-], trihydrogen (9CI) (CA INDEX NAME)

L16 ANSWER 2 OF 11 USPATFULL on STN

AB This application relates to intermediates useful for the preparation of fiber-reactive dyes, said intermediates having the formulae ##STR1## in which B is a --(CH.sub.2).sub.n-- or --O--(CH.sub.2).sub.n-- radical, where n is 1 to 6; Q is selected from the group consisting of hydrogen, C.sub.1-4 alkyl, C.sub.1-4 alkoxy, halogen, carboxyl and sulfo; and A is an amino substituent of the formula ##STR2## and Z and Z', independently of one another, are  $\beta$ -sulfatoethyl,  $\beta$ -thiosulfatoethyl,  $\beta$ -phosphatoethyl,  $\beta$ -acyloxyethyl,  $\beta$ -haloethyl or vinyl.

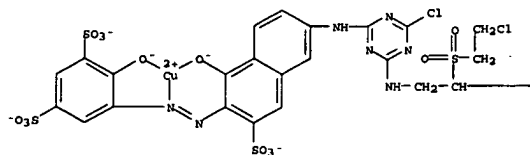
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 92:3833 USPATFULL  
TI Bis[ $\beta$ -(hydroxyethylthio)-C.sub.1-C.sub.4-alkylamines  
IN Tzikas, Athanassios, Pratteln, Switzerland  
PA Ciba-Geigy Corporation, Ardeley, NY, United States (U.S. corporation)  
PI US 5081296 19920114  
AI US 1990-510384 19900417 (7)  
RLI Continuation of Ser. No. US 1988-248872, filed on 23 Sep 1988, now abandoned  
PRAI CH 1987-3699 19870924  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Powers, Fiona T.  
LREP Dohmann, George R., Roberts, Edward McC.  
CLMN Number of Claims: 5  
ECL Exemplary Claim: 1,3,4  
DRWN No Drawings  
LN.CNT 1634

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 122317-15-1P  
(manufacture of, as reactive dye for cellulose-containing fibers)  
RN 122317-15-1 USPATFULL  
CN Cuprate(3-), [5-[[[6-[[[2,5-bis[[2-chloroethyl)sulfonyl]pentyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-], trihydrogen (9CI) (CA INDEX NAME)

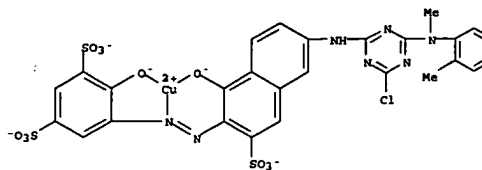
PAGE 1-A



●3 H<sup>+</sup>

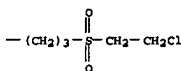
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L16 ANSWER 1 OF 11 USPATFULL on STN (Continued)



●3 H<sup>+</sup>

L16 ANSWER 2 OF 11 USPATFULL on STN (Continued)



PAGE 1-B



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L16 ANSWER 3 OF 11 USPATFULL on STN

AB Reactive dyes suitable in particular for dyeing or printing cellulose-containing fiber materials by the exhaust method or by continuous methods and, while giving a high dyeing yield, produce dyes and prints having good fastness properties; having the formula ##STR1## in which D is the radical or a monoxo, polyazo, metal complex azo, anthraquinone, phthalocyanine, formazan, oxomethine, dioxazine, phenazine, stilbene, triphenylmethane, xanthene, thiozanthone, nitroaryl, naphthoquinone, pyrenequinone or perylenetetracarboximide dye, R, B.sub.1 and B.sub.2 are independently of each other hydrogen or

alkyl which has 1 to 4 carbon atoms and which can be substituted by halogen, hydroxyl, cyano, C.sub.1 -C.sub.4 -alkoxy, C.sub.1 -C.sub.4 alkoxy-carbonyl, carboxyl, sulfamoyl, sulfo or sulfato, X and Y independently of each other are fluorine, chlorine, bromine, sulfo C.sub.1 -C.sub.4 alkylsulfonyl or phenylsulfonyl, A is an amino substituent which contains at least one group of the formula

--SO.sub.2 --Z

(2)

z is  $\beta$ -sulfatoethyl,  $\beta$ -thiosulfatoethyl,  $\beta$ -phosphatoethyl,  $\beta$ -acyloxyethyl,  $\beta$ -haloethyl or vinyl, and Q is 1 or 2 substituents from the group consisting of hydrogen, C.sub.1 -C.sub.4 alkyl, (1), wherein D is phthalocyanine and Y is fluorine.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 90138501 USPATFULL  
TI Reactive dyes containing vinylsulfonylalkylamino bound to a bis-(triazinylamino)-benzene group  
IN Tzikas, Athanasios, Pratteln, Switzerland  
PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
PI US 4925928 19900515  
AI US 1988-210678 19880623 (7)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Dohmann, George R., Roberts, Edward McC.  
CLMN Number of Claims: 40  
ECL Exemplary Claim: 1  
DRWN 40 Drawing Figure(s); 1 Drawing Page(s)  
LN.CNT 1838

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 130471-48-3P  
(manufacture of, as bifunctional reactive dye)

RN 120471-68-3 USPATFULL  
CN Cuprate(4-), [5-[[6-[[4-chloro-6-[[4-[[4-chloro-6-[[2-[[2-chloroethyl)sulfonyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]-3-sulfo-phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(6-)]-, tetrahydrogen (9CI) (CA INDEX NAME)

L16 ANSWER 4 OF 11 USPATFULL on STN

AB Intermediate useful for the preparation of fiber-reactive dyes having the formula ##STR1## in which the alks independently of each other are C.sub.2 -C.sub.6 -alkylene and Z is  $\beta$ -halogenoethyl, vinyl,  $\beta$ -sulfatoethyl,  $\beta$ -thiosulfatoethyl or  $\beta$ -acetoxyethyl.

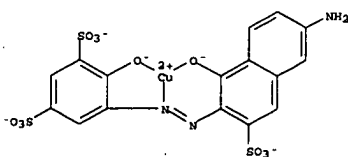
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 90123744 USPATFULL  
TI Vinylsulfonylalkylamino-alkylamines as intermediates for the preparation of fiber-reactive dyes  
IN Tzikas, Athanasios, Pratteln, Switzerland  
PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
PI US 4912244 19900327  
AI US 1988-221404 19880719 (7)  
RLI Division of Ser. No. US 1986-914832, filed on 2 Oct 1986, now patented, Pat. No. US 4782140 which is a continuation of Ser. No. US 1985-717747, filed on 28 Mar 1985, now abandoned  
PRAI CH 1984-1718 19840405  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Roberts, Edward McC.  
CLMN Number of Claims: 1  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1805

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 65230-79-7  
(reaction of, with cyanuric chloride)

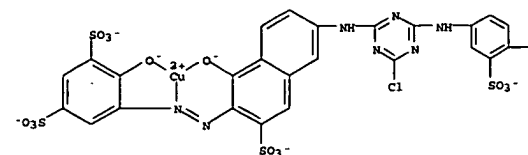
RN 65230-79-7 USPATFULL  
CN Cuprate(3-), [5-[(6-amino-2-hydroxy-3-sulfo-2-naphthalenyl)azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)



• 3 H<sup>+</sup>

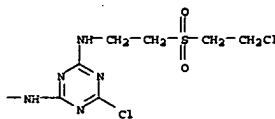
L16 ANSWER 3 OF 11 USPATFULL on STN (Continued)

PAGE 1-A



• 4 H<sup>+</sup>

PAGE 1-B



L16 ANSWER 5 OF 11 USPATFULL on STN

AB The invention relates to novel useful reactive dyes of the formula I ##STR1## in which: P is a radical selected from the group consisting of metal-free or metal-containing monoxo or diazo dyes containing at least one --SO.sub.3 H group, anthraquinone dyes, sulfophthalocyanine dyes, formazan dyes, phenazine dyes, oxazine dyes and nitroaryl dyes,

R is hydrogen, C.sub.1 -C.sub.4 alkyl which is unsubstituted or substituted with --COOH or --SO.sub.3 H, cyanoethyl, or hydroxyethyl, X is fluorine, chlorine, bromine, --SO.sub.3 H, phenylsulfonyl or C.sub.1 -C.sub.4 -alkylsulfonyl,

P is 1 or 2 and

A is a radical of the formula ##STR2## in which: the groups designated "alk" are independently of each other straight or branched polymethylene radicals having 2 to 6 carbon atoms, and

Z is  $\beta$ -halogenoethyl, vinyl,  $\beta$ -sulfatoethyl,  $\beta$ -thiosulfatoethyl or  $\beta$ -acetoxyethyl.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 8870972 USPATFULL  
TI Triazinyl reactive dyes containing additional fiber reactive groups bound through the sulfonylalkylaminoalkylamino bridge  
IN Tzikas, Athanasios, Pratteln, Switzerland  
PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
PI US 4782140 19881101  
AI US 1986-914832 19861002 (6)  
RLI Continuation of Ser. No. US 1985-717747, filed on 28 Mar 1985, now abandoned  
PRAI CH 1984-1718 19840405  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Roberts, Edward McC., Findlay, Meredith C.  
CLMN Number of Claims: 15  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1901

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

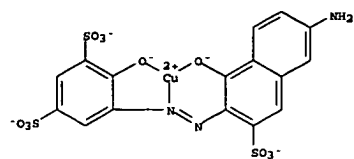
IT 65230-79-7  
(reaction of, with cyanuric chloride)

RN 65230-79-7 USPATFULL  
CN Cuprate(3-), [5-[(6-amino-2-hydroxy-3-sulfo-2-naphthalenyl)azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

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L16 ANSWER 5 OF 11 USPATFULL on STN (Continued)



● 3 H<sup>+</sup>

L16 ANSWER 6 OF 11 USPATFULL on STN

AB A reactive dye of the formula ##STR1## in which: F is a radical selected

from the group consisting of metal-free or metal-containing monoazo or diazo dyes containing at least one --SO.sub.3 H group, anthraquinone dyes, sulfoxthalocyanine dyes, formazan dyes, phenazine dyes, oxazine dyes and nitroaryl dyes.

R is hydrogen, C.sub.1 -C.sub.4 alkyl which is unsubstituted or substituted with --COOH or --SO.sub.3 H, cyanoethyl, or hydroxyethyl, X is fluorine, chlorine, bromine, --SO.sub.3 H, phenylsulfonyl or C.sub.1 -C.sub.4 -alkylsulfonyl,

p is 1 or 2 and

A is a radical of the formula ##STR2## in which: Y is chlorine, bromine, fluorine, --OH, --OSO.sub.3 H, --O-acyl, --CN, --COOH, --COO--C.sub.1 -C.sub.4 -alkyl, --CONH.sub.2 or --SO.sub.2 --Z,

the group designated "alk" is a straight or branched polymethylene radical having 2 to 6 carbon atoms,

V is ##STR3## hydrogen or C.sub.1 -C.sub.4 -alkyl which is unsubstituted or substituted by C.sub.1 -C.sub.2 -alkoxy, carboxyl, sulfo, halogen or hydroxy,

Z is β-halogenoethyl, vinyl or β-acetoxyethyl, or A is a radical of the formulae ##STR4## in all of which R' is C.sub.1-6 -alkyl or hydrogen, Z is as defined above, o is 0 to 6, and m is 2 to 6.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 88:40724 USPATFULL  
TI Reactive dyestuffs comprising a triazine moiety and a vinylsulfonyl moiety both being linked by a substituted alkylene bridge member  
IN Takas, Athanassios, Pratteln, Switzerland  
Scheib, Herbert, Riehen, Switzerland  
Scheib, Peter, Bottmingen, Switzerland  
PA Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)  
PI US 4754023 19880628  
AI US 1986-821213 19860123 (6)  
RLI Continuation of Ser. No. US 1984-669944, filed on 9 Nov 1984, now abandoned  
PRAI CH 1983-6035 19831109  
DT Utility  
PS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Wenderoth, Lind & Ponack  
CLAMN Number of Claims: 16  
ECL Exemplary Claim: 1  
DRMN No Drawings  
LN.CMT 2025  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 65230-79-7

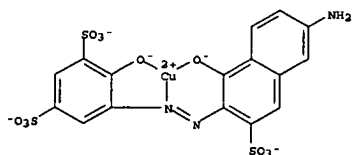
L16 ANSWER 6 OF 11 USPATFULL on STN (Continued)

(condensation of, with cyanuric chloride)

RN 65230-79-7 USPATFULL

CN Cuprate(3-),

[5-[(6-amino-2-hydroxy-3-sulfo-2-naphthalenyl)azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)



● 3 H<sup>+</sup>

L16 ANSWER 7 OF 11 USPATFULL on STN

AB Reactive dyestuffs of the formula

D-(T).sub.m

wherein

D=the radical of an organic dyestuff,

m=1-4 and

T= ##STR1## wherein X and Y=a direct bond or a bridge member,

W= ##STR2## acyl-an acyl radical and R.sub.1 -R.sub.3 =H, alkyl or aralkyl,

the radical T being bonded, via X, to a C atom of an aromatic-carbocyclic or aromatic-heterocyclic ring of the chromophore and their use for dyeing and printing textile materials containing hydroxyl groups and textile materials containing nitrogen. The dyeings obtained are distinguished by good fastness properties, in particular excellent fastness to wet processing.

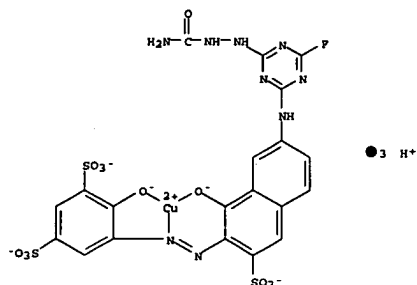
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 81:13488 USPATFULL  
TI Reactive dyestuffs  
IN Harms, Wolfgang, Leverkusen, Germany, Federal Republic of  
Munderlich, Klaus, Leverkusen, Germany, Federal Republic of  
van Oertzen, Klaus, Cologne, Germany, Federal Republic of  
PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)  
PI US 4255325 19810310  
AI US 1978-960706 19781114 (5)  
PRAI DE 1977-2751137 19771116  
DT Utility  
PS Granted  
EXNAM Primary Examiner: Niebling, John F.  
LREP Sprung, Felfe, Horn, Lynch & Kramer  
CLAMN Number of Claims: 16  
ECL Exemplary Claim: 1  
DRMN No Drawings  
LN.CMT 1564  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 70995-94-7P  
(manufacture of, as dye for cotton)  
RN 70995-94-7 USPATFULL  
CN Cuprate(3-), [5-[(7-[(4-(2-(aminocarbonyl)hydrazino)-6-fluoro-1,3,5-triazin-2-yl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl)azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trihydrogen (9CI) (CA INDEX NAME)

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L16 ANSWER 7 OF 11 USPATFULL ON STN (Continued)



L16 ANSWER 8 OF 11 USPATFULL ON STN

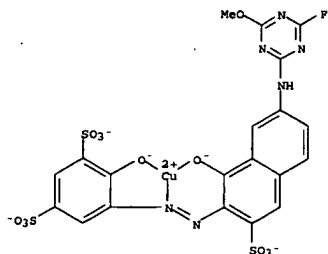
AB Reactive dyestuffs are disclosed having the formula ##STR1## in which D is the radical of an organic nonanthraquinoid dyestuff; R is hydrogen or lower alkyl; R.sub.1 is amino or substituted amino with substituents attached by a single bond, optionally etherified hydroxy, optionally etherified mercapto or an optionally substituted hydrocarbon radical; Q is an alkylene, aralkylene, arylene, --CO-- or --SO-- which is directly linked to a carbon atom of the ring of the dyestuff D; n is the number or 1 and P is a fluoro substituent. The group --N(R) is directly linked to a carbon atom of the triazine ring and on the other side, the group --N(R) is linked to a carbon atom of the ring of the dyestuff D either directly (if n=0) or (if n=1) via one of the bridge members mentioned above. These dyestuffs are primarily suitable for dyeing of textile materials containing hydroxyl or nitrogen such as natural and regenerated cellulose, wood, silk, polyamide and polyurethane. The fastness properties, particularly wet fastness, are excellent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 80:27079 USPATFULL  
TI Reactive phthalocyanine dyestuffs containing a fluorotriazinyl group attached via a nitrogen bridge to the dyestuff molecule  
IN Bien, Hans-Samuel, Burscheid, Germany, Federal Republic of  
Klauke, Erich, Odenthal-Hahnenberg, Germany, Federal Republic of  
Wunderlich, Klaus, Leverkusen, Germany, Federal Republic of  
PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)  
PI US 4206306 19800603  
AI US 1978-87494 19780123 (5)  
RLI Division of Ser. No. US 1971-151149, filed on 8 Jun 1971, now patented, Pat. No. US 4115378 which is a continuation of Ser. No. US 1968-721180, filed on 15 Apr 1968, now abandoned  
PRAI DE 1967-1644208 19670419  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Sprung, Felfe, Horn, Lynch & Kramer  
CLMN Number of Claims: 1  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 2121  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 32049-28-8P (manufacture of, as reactive dye for cellulosic textiles)

RN 32049-28-8 USPATFULL  
CN Cuprate(3-), [5-[[7-[(4-fluoro-6-methoxy-1,3,5-triazin-2-yl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

L16 ANSWER 8 OF 11 USPATFULL ON STN (Continued)



PAGE 1-A

PAGE 2-A

L16 ANSWER 9 OF 11 USPATFULL ON STN

AB Reactive dyestuffs are disclosed having the formula ##STR1## in which D is the radical of an organic nonanthraquinoid dyestuff; R is hydrogen or lower alkyl; R.sub.1 is amino or substituted amino with substituents attached by a single bond, optionally etherified hydroxy, optionally etherified mercapto or an optionally substituted hydrocarbon radical; Q is an alkylene, aralkylene, arylene, --CO-- or --SO-- which is directly linked to a carbon atom of the ring of the dyestuff D; n is the number or 1 and P is a fluoro substituent. The group --N(R) is directly linked to a carbon atom of the triazine ring and on the other side, the group --N(R) is linked to a carbon atom of the ring of the dyestuff D either directly (if n = 0) or (if n = 1) via one of the bridge members mentioned above. These dyestuffs are primarily suitable for dyeing of textile materials containing hydroxyl or nitrogen such as natural and regenerated cellulose, wood silk, polyamide and polyurethane. The fastness properties, particularly wet fastness, are excellent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 78:52766 USPATFULL  
TI Water soluble reactive azodyestuffs containing a fluorotriazinyl group attached via a nitrogen bridge to the dyestuff molecule  
IN Bien, Hans-Samuel, Burscheid, Germany, Before 1945  
Klauke, Erich, Odenthal-Hahnenberg, Germany, Before 1945  
Wunderlich, Klaus, Leverkusen, Germany, Before 1945  
PA Bayer Aktiengesellschaft, Leverkusen, Germany, Before 1945 (non-U.S. corporation)  
PI US 4115378 19780919  
AI US 1971-151149 19710608 (5)  
RLI Continuation of Ser. No. US 1968-721180, filed on 15 Apr 1968, now abandoned  
PRAI DE 1967-52178 19670419  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Plumley and Tynes  
CLMN Number of Claims: 24  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 2079  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 32049-28-8P (manufacture of, as reactive dye for cellulosic textiles)

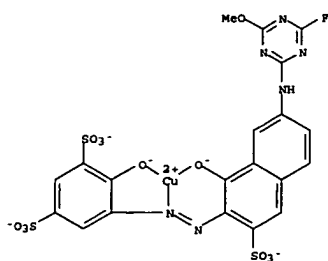
RN 32049-28-8 USPATFULL  
CN Cuprate(3-), [5-[[7-[(4-fluoro-6-methoxy-1,3,5-triazin-2-yl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

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L16 ANSWER 9 OF 11 USPATFULL on STN (Continued)

PAGE 1-A



● 3 Na+

PAGE 2-A

L16 ANSWER 10 OF 11 USPATFULL on STN

AB Reactive dyestuffs particularly useful in the dyeing of textile materials containing hydroxyl groups or nitrogen, such as natural and regenerated cellulose, wool, silk, synthetic polyamides, and synthetic polyurethanes, are prepared and have the formula: ##SPC1##

Wherein F is the radical of an organic dyestuff; X is --CH=CH--.

##SPC2##

wherein R is hydrogen or a lower alkyl radical of 1 to 5 carbon atoms;

A

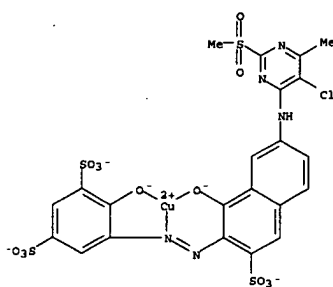
is a pyridine, pyrimidine, pyridazine, pyrazine, thiazine, triazine, quinoline, phthalazine, cinnoline, phenazine, or phenanthridine radical which contains at least one lower alkyl sulfonyl, phenyl sulfonyl, benzyl sulfonyl, naphthyl sulfonyl, bensthiazolyl sulfonyl, thiazolyl sulfonyl, thiadiazolyl sulfonyl, oxazolyl sulfonyl, benzimidazolyl sulfonyl, or pyrimidyl sulfonyl, said sulfonyl radical containing no substituents or substituents selected from the class consisting of the bromine, chlorine, hydroxyl, nitro, cyano, sulfo, carboxyl, carboxy lower alkyl, lower carboalkyl, lower carboalkoxy, lower alkoxy, lower alkyl, lower alkyl sulfonyl amino and acetyl amino radical, said reactive sulfonyl substituent being linked to a carbon atom of the heterocyclic moiety A, and m represents a number from 0.5 to 8. The dyeings which can be obtained with the new dyestuffs are characterized by good to very good fastness properties, especially by excellent fastness to wet processing.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 74:57963 USPATFULL  
TI REACTIVE DYESTUFFS CONTAINING A FIBER-REACTIVE ALKYL-SULFONYLPYRIMIDYL GROUP  
IN Schundehutte, Karl-Heinz, Leverkusen, Germany, Federal Republic of  
PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)  
PI US 3853840 19741210  
AI US 1970-22365 19700324 (5)  
RLI Continuation of Ser. No. US 1965-512542, filed on 8 Dec 1965, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Plumley & Tyner  
CLMN Number of Claims: 14  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 5118  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 14871-37-5P  
(preparation and cellulosic fiber dyeing by)  
RN 14871-37-5 USPATFULL  
CN Cuprate(3-), [5-[[7-[[5-chloro-6-methyl-2-(methylsulfonyl)-4-pyrimidinyl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]azo]-4-hydroxy-1,3-benzenedisulfonato(5-)]-, trisodium (9CI) (CA INDEX NAME)

L16 ANSWER 10 OF 11 USPATFULL on STN (Continued)

PAGE 1-A



● 3 Na+

PAGE 2-A

L16 ANSWER 11 OF 11 USPATFULL on STN

AB Fiber reactive dyestuffs for use on cellulose containing textile materials having the formula ##SPC1##

Wherein F is the radical of an organic dyestuff, A is a five- or six-membered isocyclic or heterocyclic ring, X is hydrogen or an organic substituent, Y is hydrogen, halogen or an organic radical, "halogen" is a halogen atom, m a whole number and n a whole number from 1 to 3.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 72:27462 USPATFULL  
TI AZO DYESTUFFS  
IN Siegel, Edgar, Leverkusen, Germany, Federal Republic of  
PA Sasse, Klaus, Cologne-Stammheim, Germany, Federal Republic of  
Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of  
PI US 3666747 19720530  
AI US 1968-775554 19681113 (4)  
RLI Continuation of Ser. No. US 1962-171269, filed on 5 Feb 1962, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Parker, Charles B.; Assistant Examiner: Papuge, Donald  
M.  
LREP Connolly and Hutz  
CLMN Number of Claims: 16  
DRWN No Drawings  
LN.CNT 1102  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 38459-11-9P  
(preparation of)  
RN 38459-11-9 USPATFULL

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COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

75.15

633.31

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

ENTRY

TOTAL

SESSION

CA SUBSCRIBER PRICE

0.00

-9.56

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